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Basic Report

NORTHERN ELECTRIC COMPANY LIMITED

A Major Canadian Company

G. P. Hirasawa
Toronto
December, 1975

Recent Research Material

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* Basic

** Progress

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NORTHERN ELECTRIC CO. LTD.

Listed - NE - Toronto, Montreal, Vancouver, New York

STATISTICAL SUMMARY

Current Price	1975 Price Range	Indicated Dividend	Current Yield	Earnings 1975E	Earnings 1976E	Earnings 1977P	P/E on 1976E
$ 25	$16 1/4 - $31 3/8	$0.60	2.4%	$2.60	$3.00	$3.50	8.3x

Earnings per Share

	Q1	Q2	Q3	Q4	Total	Dividends
1970	$N/A	N/A	N/A	N/A	$0.21	.375
1971	N/A	N/A	N/A	N/A	0.54	.502
1972	N/A	N/A	N/A	N/A	0.86	.500
1973	0.38	(0.09)	0.57	0.49	1.35	.500
1974	0.50	0.60	0.51	0.44	2.05	.525
1975	0.63	0.85	0.64	0.48E	2.60E	

Capitalization (millions) (at 31 July 1975)

Long-Term Debt	$ 62.4	16.3%
Equity *	316.8	82.9
Minority Interest	3.0	0.8
	$382.2	100.0%

* 26.5 million common shares outstanding, of which 18.3 million (69%) are owned by Bell Canada. There are also warrants outstanding on a further 2 million Bell-held shares, which will reduce the holding to 62% when exercised.

I. SUMMARY & RECOMMENDATION

The following summarizes our reasons for favouring an investment in the common shares of Northern Electric Company Limited.

- The telecommunications equipment industry, with annual sales exceeding $20 billion worldwide, is a stable, growth industry.

- Northern Electric is a world leader in this industry. One of Canada's biggest industrial companies, it ranks as the fifth largest in terms of the world's telecommunications equipment suppliers.

- Northern has a strong base of domestic operations in Canada. It is believed to have in excess of 70% of the available Canadian market. It is a subsidiary of Bell Canada, which controls 70% of the telephones in that country.

- The Company is aggressively expanding its market share in the United States. Its products are fully compatible with all U.S. telephone systems, and have found ready acceptance because of high quality, reliability, advance design and other considerations. Northern is one of only two North American manufacturers able to offer a complete product line to the telephone industry.

- The Company is actively pursuing business in offshore countries. So far, in the difficult European market, NE has established plants in Ireland and Turkey, and has marketing and manufacturing agreements with companies in France and Scandinavia. In addition, sales offices have been established in Amsterdam, Asia, and the United Kingdom.

- NE has a strong commitment to R & D, to enable it to remain in the forefront of technology and design. Bell-Northern Research Ltd. (49% owned) is Canada's largest industrial R & D facility. The Company spent $44 million on R & D in 1974.

- A new management team headed by John Lobb has brought a marketing and profit orientation to the firm. Decentralized operations and management have been a key move in this direction.

- The Company's balance sheet is extremely strong, placing it in good position for expansion or acquisitions as they arise.

- Northern Electric is the only North American company for which the stock is a pure participation in the telecommunications equipment industry. Others are available only through utilities (AT&T, UT) or conglomerates (ITT).

- Profits are in a strong uptrend. Over the 1970-74 period, earnings per share have grown at an average annual rate of 76%. For 1975 our estimated EPS is $2.60, up 27%. While the growth rate has moderated over the past six months, we believe the pattern of earnings advance will resume in 1976. Over the longer term, a 15% annual growth rate is anticipated.

- Northern Electric common shares are firmly established as a superior growth situation in Canada and have a strong institutional following. They command a modest P/E multiple on Canadian markets which could expand as the company's profit performance continues to confirm the recent positive record.

II. WHY IS THE TELECOMMUNICATIONS EQUIPMENT INDUSTRY ATTRACTIVE FOR INVESTMENT?

1. The telecommunications industry is a stable industry.

The telephone is regarded as an essential service today. In North America, the number of telephones in use has increased each year, regardless of economic conditions. Capital spending has also increased each year, although 1975 appears likely to prove to be an exception in the U.S., following the recent severe economic recession. As discussed more fully in a later section, growth will likely resume in 1976. Relevant statistics are contained in Tables I & II.

2. Spending on telecommunications equipment will continue to grow.

(a) Typical book value of overall plant investment by telephone companies today is about $500-$700 per telephone, while the incremental cost is steadily rising, and is now in the order of $1500-$1800 in North America.

About 50-60% of this flows directly to equipment manufacturers. Since telephones are being added in the world at a rate exceeding 20 million annually, the equipment market is of the order of $20 billion and continues to grow.

(b) The largest part of telephone company capital spending accommodates growth and expansion. This is not only to handle increases in population, etc, but also to deal with the demands for new telecommunications services that are continously being introduced. Data transmission is an example. This trend to innovative and complex services is expected to continue.

(c) The need for modernization also provides excellent opportunities. Consider the case of Bell Canada, for example. That company plans to replace 90% of its installed step-by-step switching machines with modern electronic exchanges by 1990, at a projected cost of $1.1 billion.

In Europe, the low standard of service in many countries is well-known, again providing opportunities for aggressive manufacturers.

TABLE I

Canadian Telephone Industry Facts

	Telephones in Service ('000)			Capital Expenditures ('000,000)		
	Bell	Canada	Growth Rate Bell System	Bell*	Canada	Growth Rate Bell System
1960	3,972	5,728	-	228	300	-
1965	5,172	7,445	5.5% (1960-'65 Avg.)	291	402	6.0% (1960-'65)
1970	6,780	9,750	5.5% (1965-'70 Avg.)	481	706	12.0% (1965-'70)
1971	7,118	10,269	5.0%	555	816	15.2%
1972	7,629	10,987	7.2%	606	893	9.3%
1973	8,067	11,677	5.7%	694	1000	14.4%
1974	8,566	12,600	6.2%	983	1300	41.7%
1975E				1000	1500	1.7%
1976E				1150	1750	15.0%
1977E				1300	2000	13.0%
1978E				1450	2250	11.5%
1979E				1550	2450	7.0%

* includes subsidiaries.

Source: Statistics Canada
Estimates by Wood Gundy, based on figures submitted in latest Bell Canada rate application to Canadian Transport Commission.

TABLE II

U.S. Telephone Industry Facts

	Telephones in Service ('000)			Capital Expenditures ('000,000)		
	Bell System	Independ.	Growth Rate Independents	Bell System	Independ.	Growth Rate Independents
1960	62,989	11,353	-	$2,658	565	-
1965	78,632	15,027	5.8% (1960-'65 Avg.)	3,918	928	10.5% (1960-'65)
1970	99,903	20,315	6.2% (1965-'70 Avg.)	7,314	1,665	12.4% (1965-'70)
1971	103,698	21,444	5.6%	7,728	1,953	17.3%
1972	108,811	22,792	6.3%	8,484	2,053	5.1%
1973	113,935	24,335	6.8%	9,500	2,325	13.2%
1974	118,146	25,826	6.1%	9,283	2,618	12.6%
1975E				9,750	2,305	-12.0%
1976E				10,300	2,466	7.0%

Sources: U.S. Independent Telephone Association
Telephone Engineer and Management

II. THE COMPANY AND ITS PRODUCTS

Northern Electric, with sales of about $1 billion annually, is one of Canada's largest companies. From more than forty plants in five countries, it manufactures a complete range of telecommunications products to serve the needs of telephone operating companies and others. The Company's manufactured product line includes:

1) subscriber equipment - basic telephone sets and peripheral equipment used on subscribers' premises;
2) business communications equipment - including private branch exchanges and data communications sets;
3) central office switching equipment -- used to interconnect both local and long distance calls;
4) transmission equipment - to transmit signals for varied distances between central offices (includes satellite transmission equipment);
5) wire and cable.

The Company also carries on an extensive distribution business for electrical, industrial and electronic products through Nedco (1975) Ltd. and its subsidiaries. Nedco is believed to have about a 13% share of this type of business in Canada.

Sales of Northern Electric by product line in 1974 were as follows:

Manufacturing:	$ Millions	%
Subscriber Apparatus and Business Communications Equipment	$ 181	19
Switching Equipment	314	32
Transmission	103	11
Wire and Cable	191	20
Other	24	2
Distribution	158	16
	$ 971	100%

While all segments of the business have shown good growth, switching, business communications equipment and transmission equipment appear to have done exceptionally well. To afford the reader a flavour of the Company's products, we have included a discussion of the SP-1 electronic exchange and the SL-1 private branch exchange in Appendix III.

Most of Northern Electric's sales are presently in North America. The estimated geographical breakdown for 1974 follows:

	$ Millions	%
Canada	$828	85%
U.S.A.	103	11
Europe and other	40	4
	$971	100%

III. NORTHERN ELECTRIC'S POSITION IN THE INDUSTRY

1. Size in Relation to World Competitors

Northern Electric is one of Canada's largest companies and dominates the supply of telecommunications equipment in that country. It also ranks as one of the world's largest suppliers, as the following table illustrates.

Company	Estimated Annual Sales of Telecommunications Equipment* ($ millions)
Western Electric	7,382
I.T.T.	3,037
Siemens A.G.	1,800
Ericsson L.M.	1,460
Northern Electric	813
General Telephone & Electronics	700
Nippon Electric	670

* Latest fiscal year.

2. Factors in the U.S. Market

The major telephone companies or groups in the United States are as follows:

	No. of Telephones (1974) (000's)	%
AT&T and Affiliates	118,146	82.1%
General Telephone & Electronics	11,840	8.2
United Telecommunications	3,236	2.3
Continental Telephones	2,054	1.4
Other (approximately 1500 companies)	8,696	6.0
	143,972	100.0%

The four largest companies have their own manufacturing subsidiaries, so that sales penetration there by Northern Electric is difficult, although by no means precluded. The market most open to the company, and for which all manufacturers compete (with the exception of AT&T's Western Electric), is made up of the remaining 1500 smaller independents. The twenty largest companies in this group account for 50% of the spending by the 1500 companies.

Northern Electric, through its wholly-owned U.S. subsidiary, Northern Telecom Inc. (NTI) is achieving good success in penetrating this market. Because of high quality, advanced features, compatibility, and other considerations, its products have found ready acceptance. The company has established six domestic plants to manufacture a broad range of its products, as well as numerous sales and service offices in strategic locations. The company is believed to be one of only two in North America that manufacture the complete line of products required by the telecommunications industry. Sales have grown from a small position prior to 1970, to $93 million in 1974.

Those customers that we have surveyed speak enthusiastically of the company's products and service.

3. Factors in the European Market

For a telecommunications manufacturer, Europe presents special problems for a company that is trying to establish itself in the various markets. Firstly, unlike North America, the equipment is not always compatible, and certain costly engineering changes are usually required for each country. Secondly, because the telephone systems are government owned, the equipment is often purchased through indigenous cartels or consortiums, with a degree of emphasis on local manufacturing. Long-established manufacturers with local branch plants therefore are at an advantage.

Nevertheless, the market is huge and growing, and NE is making significant progress in obtaining a share of the business, despite the problems and the intensity of competition. This is evidenced by the following:

i) A joint venture in Turkey.
ii) A mutual licensing agreement with a Norwegian firm covering the sale of certain NE products in Scandinavia.
iii) An agreement with Thomson CSF in France, a member of the French manufacturing cartel, to allow the manufacture of NE equipment in France. (See further discussion in Section IV.)
iv) Establishment of a plant in Ireland and sales offices in Amsterdam. This should facilitate penetration into the European Common Market.

Further such developments can be expected in the future.

IV. RECENT EVENTS

1. Microsystems International

Microsystems International (MIL) was formed in 1969 to manufacture semiconductors, integrated circuits and other high technology devices for both the Canadian and export markets. Unfortunately, it did not succeed, beset with a number of problems including difficult technology and high production costs. The company incurred losses aggregating $49 million before ceasing operations in early 1975.

Under the terms of an offer made in December, 1974, Northern Electric recently exchanged the shares and purchase warrants of MIL minority shareholders for its own common shares on the basis of one share of NE for seven MIL shares or fifteen MIL warrants. To utilize the accumulated losses for tax purposes, MIL then acquired the assets of Nedco Limited, as of June 1, 1975, and was renamed Nedco (1975) Ltd.

To the extent that the latter company generates income that would be ordinarily taxable, and to the extent that tax loss carryforward credits are available, the consolidated results of Northern Electric will benefit. We estimate this benefit at about $0.10 per share in 1975 and perhaps $0.20 - $0.25 per share in 1976.

2. Agreement with Thomson-C.S.F., France

Northern Electric recently announced the signing of a series of agreements with Thomson C.S.F. of France. Thomson C.S.F., with estimated annual sales of more than $1,000 million is the telecommunications subsidiary of Thomson-Brandt, a diversified French firm which manufactures a wide range of electrical and electronics products.

Under one of the agreements, Thomson will manufacture Northern's SP-1 switching system and other products in France under license, and this is expected to involve the sale of significant amounts of components made in Canada. Under another, Northern will market some of Thomson's products in North America. A third agreement calls for liaison between the two companies on the development of digital switching systems.

These agreements are not expected to significantly impact the near-term profitability of Northern Electric, but are considered important for their longer term growth potential. The French government is committed to quickly improve the low quality of the telephone system in that country, and vast expenditures on equipment are planned. Nevertheless, we believe it will prove a difficult and slow process for business to develop for Northern, and investors should not place undue emphasis on these agreements.

3. Agreements with Puerto Rico

Northern Electric, through its U.S. subsidiary, has also received an order to supply the Puerto Rico Telephone Company with SP-1 exchanges and other equipment over a seven-year period. The agreement calls for purchases of a minimum of 17 central offices and as many as 30, and is believed to be worth in excess of $70 million over the duration of the agreement.

V. FINANCIAL PERFORMANCE RECORD

1. The Period 1970-1974.

The statistics below indicate the progress the Company has made over the past five years.

	Year ended December 31				
	1970	1971	1972	1973	1974
Sales ($ Millions)	$563.6	$576.3	$534.3	$612.8	$970.7
Net Profit ($ Millions)	$ 4.1	$ 12.6	$ 20.1	$ 32.0	$ 53.8
E.P.S.	$0.21	$0.54	$0.86	$1.35	$2.05
Gross Profit Margin	16.6%	19.2%	24.1%	26.2%	25.3%
Operating Margin	2.0	5.0	8.6	10.0	10.9
Net Profit Margin	0.7	2.2	3.8	5.2	5.5
Return on Invested Capital	3.8%	7.0%	9.8%	13.4%	17.5%
Return on Average Equity	2.3%	6.9%	10.7%	14.6%	20.3%
Growth Rate of Sales:	1970-74		15% per annum		
	1973-74		58%		
Growth Rate of E.P.S.:	1970-74		77% per annum		
	1973-74		52%		

By all measures, Northern Electric has achieved a superb financial record of continuous improvement over the period above. Sales, earnings and profit margins all advanced impressively. Particularly striking is the improvement of return on capital and on equity. Both were at record high levels in 1974.

The results are even more impressive when the depressing effect of now discontinued Microsystems International (MIL) is taken out. Comparative earnings figures as follows:

	Year ended December 31				
	1970	1971	1972	1973	1974
E.P.S. including MIL	$0.21	$0.54	$0.86	$1.35	$2.05
E.P.S. excluding MIL	$0.36	$0.70	$0.98	$1.61	$2.38

Contributing Factors to the Success

Northern Electric has long had an enviable reputation for quality products and an emphasis on research and development, two key elements in the success of any technologically-oriented manufacturing organization. The tremendous growth experienced since 1970, however, is due to additional factors. We have tried to identify some of these below.

i) Strengthened Senior Management Team

In 1971, Mr. John C. Lobb joined the company as president. His joining the company, and the changes introduced by him and other new executives, have been key elements in the success. Programs such as a profit and market-oriented outlook, decentralization and reorganization of the company, the thrust into foreign markets are believed largely a result of this new team. For a management organization chart and short profiles on selected individuals, please refer to Appendix I.

ii) Profit and Market-Oriented Outlook

Prior to the period under review, Northern Electric's policies were oriented to being a volume producer of quality equipment for the industry in general and Bell Canada in particular. Profitability and improvement of market share appear to have received secondary emphasis.

Marketing, service and an emphasis on profitability are now an integral part of operations at Northern Electric. The corporate structure has been reorganized along product lines with a marketing organization at appropriate levels, their efforts being coordinated by a central corporate marketing group. The infusion of profit awareness and aggressive marketing have been vital ingredients brought by the new policies.

iii) Rationalization of Product Line and Operations

In the transition period of basic reorganization (1970-72), Northern Electric trimmed unprofitable items from its product line, closed uneconomic distribution centres, and cut about 5,200 employees from its payroll (20%). Sales in virtually all segments of the business consequently declined in 1972, but earnings advanced strongly. This creation of a lean, profit-oriented organization set the stage for further improvement which continues today.

iv) U.S. Market Share

Northern Electric is aggressively pursuing continuing market share in the United States. Sales in 1974 totalled $93 million, with profits of $3.9 million. With the recessionary economic environment, however, 1975 so far has not proven to be as good (see Section VI, below). The complete line of products is sold in the U.S., much of it manufactured locally in six plants.

v) Nedco (1975) Limited

Nedco is the distribution arm of Northern Electric, engaged in distributing industrial, electrical, and electronic materials. This subsidiary has benefitted significantly from the process of product line rationalization and profit orientation, with the earnings contribution roughly doubling in each of the past three years. Nedco in 1974 accounted for approximately 16% of consolidated sales and 10% of profits.

2. Interim Results for 1975

Audited quarterly sales and profit figures follow. More complete data appears in Table V.

	1975		
Quarter:	1	2	3
Sales ($ millions)	$264.7	$281.5	$237.9
Profits (millions)	$16.7	$22.6	$16.9
E.P.S.	$0.63	$0.85	$0.64
Increase over 1974 Period			
Sales	22.2%	15.7%	-1.7%
Profits	27.5	44.0	28.0

After eliminating the effect of discontinued operations, the following adjusted figures emerge.

	------1974-------		-------1975-------	
	First Half	Third Quarter	First Half	Third Quarter
Sales ($ millions)	446.0	236.7	541.3	237.9
Profits (millions)	30.5	16.8	41.0	16.9
E.P.S.	$1.10	$0.64	$1.17	$0.64
Increase over 1974 Period				
Sales			21.4%	0.5%
Profits			34.4	0.0

From the above, it is apparent that the first half was very buoyant. Canadian operations appear to have been extremely strong, fuelled by record spending on the part of the parent, Bell Canada, good sales to other Canadian telephone companies, and continued prosperity for the distribution company. United States sales declined in this period, due to the severe economic conditions noted earlier.

The Company reported flat third quarter results from continuing operations. We believe this was due to persisting weak demand from U.S. customers, combined with a modest decline in the level of Canadian activity. The latter aspect largely reflected temporary cutbacks in Bell Canada spending in reaction to the deferral of a rate increase request by regulatory authorities.

It should be noted that the elimination of unprofitable subsidiaries, chiefly Microsystems, has been a significant factor in overall results, by way of a lower apparent tax rate. The tax rate has been aided as well in the third quarter by tax credits from MIL losses of former years.

VI. FINANCIAL COMPARISONS WITH SELECTED COMPANIES

While many companies manufacture telecommunications equipment, it is usually only one of several activities. Profitability data on the telecommunications portion of the business is often not available. The following data, while incomplete, may be useful in assessing Northern Electric's relative position in terms of growth and profitability.

North American-based Companies	Sales ($ Millions) Note 1	Net Profit ($ Millions)	Net Profit Margin	Growth Rate of Sales (1970-74)
Northern Electric	813	47	5.7%	15.0%
Western Electric	7,382	311	4.2	6.0%
General Telephone & Electronics	700	42	6.0	6.4%
International Telephone & Telegraph	3,037	176	5.8	26.2%
Superior Continental	176	8	4.7	8.1%
North Electric	290	6.8	2.3	18.1%
Non-North American-based Companies				
Nippon Electric	670	n/a	n/a	12.8%
Siemens	1,800	n/a	n/a	18.5%
Ericsson Telephone	1,460	79	5.4	17.4%

Notes: 1. Sales figures eliminate, where possible, sales of equipment etc. deemed not for use in the telecommunications industry. Northern Electric figures do not include Nedco Ltd.
2. Main sources: Company Annual Reports and Statistical Supplements.

Even in these sketchy statistics, Northern Electric emerges quite favourably, ranking at the upper end in terms of profit margins and growth rate of sales.

Comparison with Ericsson

We have conducted a more detailed comparison of Northern Electric with L.M. Ericsson Telephone Company of Sweden, a company that appears to be engaged solely in telecommunications manufacturing. Please refer to Table III.

The following observations are made:

- Both companies have shown good sales growth in the last five years.
- Northern Electric's profit growth has been dramatically higher, partly due to the fact it was starting from a depressed base.
- NE's profit margins are lower, showing possible scope for improvement.
- On the other hand, NE shows comparatively high utilization of plant. This may relate to Ericsson's wide dispersion of plant facilities in many countries.
- NE's financial ratios are stronger. Note that NE's balance sheet is now even stronger than in 1974.
- NE's sales are showing big increases in all divisions.

We conclude from this partial examination that Northern Electric is the relatively more attractive company when compared to Ericsson.

Table III

COMPARISON OF NORTHERN ELECTRIC & LM ERICSSON

1. Income Statement - 1974

($ millions)	Northern Electric	% of Sales	L.M. Ericsson	% of Sales
Net Sales	$ 970.7	100.0%	$ 1,460.4	100.0%
Cost of goods sold	725.3	74.7	874.5	59.9
Selling, general, and R&D	139.3	14.3	399.8	27.4
	106.1	10.9	186.1	12.7
Net Interest Expense	4.8		11.0	
Other Income	-		2.4	
Pre-tax Income	$ 101.3	10.4	$ 199.5	13.7

2. Comparison of 1974 Sales Mix

	Northern Electric			L.M. Ericsson		
	$ Millions	% of Total	Growth over 1973	$ Millions	% of Total	Growth over 1973
Switching	$314	32.3	77%	$680	46.6	19%
Wire and Cable	191	19.7	38	221	15.1	27
Business & Residential Apparatus	181	18.6	55	257	17.6	26
Transmission	103	10.6	47	97	6.6	20
Other	182	18.8	64	205	14.1	17
	$ 971	100.0%	58%	$1,460	100.0%	21%

3. Analysis

	Northern Electric	L.M. Ericsson
Growth Rate of Sales (1970-74)	15.0% per annum	17.4% per annum
Growth in Pre-tax Income (1970-74)	82.0 per annum	13.2 per annum
Sales per $ of Net Plant Investment	$8.08	$3.88
Sales per Employee	$37,000	$18,000
Current Ratio	2.9:1	2.0:1
Debt/Equity ratio *	0.37	0.53
Return on Average Invested Capital (pre-tax)	28.7%	20.7%
Return on Average Equity *	20.3%	16.3%

* Equity for Ericsson defined to include special reserves.

Comparison of First Half Results

Northern's performance in this year's first half sets it apart from its competitors, as the representative figures below illustrate:

First Half Results ($ Millions)	Northern Electric	Ericsson Telephone	General Tel. & E.	North Electric	Northern Telecom.
Sales 1975	$546.2	$818.6	$327.7	$103.3	$40.4
1974	460.0	698.2	368.8	147.8	46.2
Net Profit 1975	$ 36.5	$ 77.0*	$ 17.9	$ 1.4	$ 0.9
1974	28.8	98.3*	24.2	2.8	2.0
Increase in Sales - 1974-75	19%	17%	-11%	-30.1%	-12.5%
Increase in Profit - 1974-75	27%	-22%	-26%	-50%	-55%
Profit Margin 1975	6.7%	-	5.5%	1.4%	2.2%
1974	6.2%	-	6.6%	1.9%	4.3%

* Before tax and special appropriations.

Northern Electric is the only company to show a profit improvement over the 1974 first half, a trend that is believed will remain over the full year. As noted earlier, Northern's U.S. subsidiary (Northern Telecom.), has suffered a reduced level of business like its competitors, with the effect on profits accentuated by the relatively low level of operations.

VII. NEAR-TERM OUTLOOK

In Table IV, we present our projections of consolidated earnings for 1975 and 1976. While it is difficult to forecast the earnings of a manufacturing company with any meaningful precision, we believe the figures shown are conservative and can be achieved, subject to the uncertainties noted later in this section.

For 1975, we look for earnings of about $2.60 per share. Often, because of the large size of orders and irregularities in timing of payments received, quarterly results show no trend, as the compilation in Table V would indicate. Our estimate, however, implies the expectation of a modest fourth quarter, continuing the relative softness experienced in the third, when earnings from continuing operations were only equal to last year. Sales to Canadian telephone companies have moderated after record first half deliveries, and U.S. business remains somewhat sluggish.

Looking forward to 1976, we expect earnings of $3.00 per share or better. With the economies of the world beginning to move forward again, telecommunications spending should again be rising. Indications regarding Canada and the United States, Northern's two principal markets, show this indeed to be the case. Bell Canada plans to spend approximately 15% more in 1976, after a restrained 1975, and the Company should benefit proportionally. The most recent rate increase awarded to Bell Canada (taking effect in mid-January) would appear to ensure that Northern's sales to this customer will remain buoyant. In the U.S., independent telephone companies are planning an aggregate 7% increase, with some of Northern's major clients looking to increases in excess of 15%. (Please refer to Tables I and II for our estimates of telephone industry spending.) Based on expectations of maintaining market share in Canada, and an improving position in the U.S., we think a 15% sales increase in 1976 for Northern is not unreasonable.

Forecasting of profit margins is rather tenuous because of the uncertainties surrounding wage and price controls (see below), but our projections anticipate the favourable impact of new products replacing less profitable older lines, such as the continued swing towards stored program central offices and away from crossbar.

Uncertainties

The effect of the federal government's anti-inflation measures introduced October 14 remain an uncertainty at this time. From the price standpoint, the Company expects to be regulated by profit margins on each product line, which we view as the least restrictive guideline. Under this measure, profit margins on individual products are not allowed to expand beyond those in effect in the period around October 14, and only cost increases may be passed along. There is no restriction on overall corporate profit levels as a result of volume increases, new products, etc. However, with 34,000 different products, it appears necessary to allocate products into groups for control purposes, and approval for such a procedure will be required from authorities.

On the wage side, the control measures should serve to moderate labour cost pressures, although their effect in the near-term is difficult to determine. Labour contracts covering the major Canadian plants were signed in 1973 after strikes that effectively closed down Canadian operations for a period of five to six weeks. These contracts expire in March, 1976 and it is not possible to predict events which might occur at that time. It should be noted that present contracts contain cost-of-living clauses which may moderate the impact of any

TABLE IV

NORTHERN ELECTRIC COMPANY LIMITED

Income Statistics and Projections

($ Millions)	1974	% Change 1973-74	1975E	% Change 1974-75	1976E	% Change 1975-76
Sales	$970.7	58.4%	$1,024.0	5.5%	$1,160	13%
Cost of Sales	725.3		744.0		844	
Gross Profit	245.4	52.7%	280.0	14.1%	326	16%
Selling, general and administrative expense	95.2	42.9%	104.0	9.2%	120	15%
R & D	44.1	34.9%	50.0	13.4%	58	15%
Operating Income	106.2	73.0%	126.0	18.6%	148	17%
Net Interest costs	4.8		5.0		7	
Pre-tax Income	101.4	72.7%	121.0	19.7%	141	17%
Income Tax	50.7		51.0		60	
After-tax Income	50.7		70.0		81	
Less: Minority Interest in profit (loss) of subsidiaries	(3.0)		1.2		1	
Net for Common	$53.8	68.1%	$ 68.9	28.1%	$ 80	12%
E.P.S.	$2.05	51.9%	$2.60	26.8%	$3.00	13%
No. of shares o/s (millions)	26.2		26.5		26.5	
Gross Margin	25.2%		27.3%		28.1%	
Pre-tax Margin	10.4%		11.8%		12.2%	
Net Margin	5.2%		6.8%		6.9%	
Apparent tax rate	50.0%		42.1%		42.5%	

TABLE V

NORTHERN ELECTRIC COMPANY LIMITED

Quarterly Income Statistics

($ Millions)	1973 Q1	1973 Q2	1973 Q3	1973 Q4	1974 Q1	1974 Q2	1974 Q3	1974 Q4	1975 Q1	1975 Q2	1975 Q3
Sales	$151.4	$108.5	$162.5	$190.8	$216.7	$243.3	$242.1	$268.6	$264.7	$281.5	$237.9
Operating Income	17.6	(2.7)	26.1	20.5	26.0	32.5	24.1	23.7	30.7	42.4	30.6
Pre-tax Income	17.0	(3.2)	25.4	19.5	25.5	31.5	22.5	22.0	29.1	40.8	29.9
Income Tax	8.4	(1.0)	12.8	10.4	12.6	15.9	10.7	11.5	12.5	17.8	12.5
After-tax Income	8.6	(2.2)	12.6	9.0	12.9	15.5	11.8	10.5	16.6	22.9	17.4
Min. Interest in profit (loss) of subsidiaries	(0.3)	(0.2)	(0.7)	(2.7)	(0.2)	(0.2)	(1.4)	(1.2)	(0.06)	0.3	0.4
	$ 8.9	$ (2.0)	$ 13.3	$ 11.7	$ 13.1	$ 15.7	$ 13.2	$ 11.5	$ 16.7	$ 22.6	$ 16.9
E.P.S.	$0.38	$(0.09)	$0.57	$0.49	$0.50	$0.60	$0.51	$0.44	$0.63	$0.85	$0.64
Gross Margin	11.6%	-	16.1%	10.7%	12.0%	13.4%	10.0%	8.8%	11.6%	15.1%	12.8%
Net Margin	5.7	-	7.8	4.7	6.0	6.4	4.9	3.9	6.3	8.1	7.3
Apparent Tax Rate	49.4	-	50.4	53.3	49.4	50.5	47.6	52.3	43.0	43.6	41.8

settlement. Three of the more significant unions involved are:

Bramalea, Ontario - United Electrical, Radio & Machine Workers of America.
Montreal, Quebec - Canadian Union of Communication Workers.
Kingston, London, Belleville, Ontario - United Auto Workers of America.

VIII. LONGER TERM OUTLOOK

We believe Northern Electric has a bright future. It is useful to restate some of the reasons for our optimism here.

1. Demonstrated management ability.
   - The latest five year record speaks for itself.
2. Excellence of the Company's product line.
   - Reputation for quality, testimonials of customers.
3. Commitment to research and development.
   - Helps assure new products will be developed to maintain the leadership position.
4. Aggressive, marketing oriented outlook.
5. Profit motivation.
6. Strong base of Canadian sales.
7. Scope for growth.
   - Low level of sales penetration in the U.S. and Europe.
8. Demonstrated success in penetrating the European market.
9. Strong balance sheet.
10. Acquisition oriented management.
    - Strong financial position will enable NE to take advantage of favourable situations as they arise.
    - The offer for Dictaphone in 1974 is an example.
    - The New York Stock Exchange listing will aid matters in this regard, by facilitating share exchange offers, for example, and otherwise making the Company more well-known.

The major uncertainties to long-term viability, in our view, relate to the question of competition.

1. New Suppliers of Telecommunications Equipment

Electronic systems in general today use much more shared technology and multi-purpose components than in the past, when most of the equipment was highly specialized. Not only are the components now shared, but often so are the design concepts. Thus, the telephone switching manufacturer, for example, is subject to increasing competition from other segments of the electronics industry. Recent years have seen multinationals, such as IBM, enter the switching field in foreign countries.

While more of this activity can be expected in all areas of the business, we feel traditional telecommunications suppliers such as Northern have formidable advantages:

- experience and over-all know-how in the industry
- established business relationships, marketing skills and contacts
- a full line of products
- an established, traditional customer base in its parent company

2. Shortening Product Life Cycles

Research and development is an increasingly expensive business, while at the same time technology continues to shorten new product life cycles. There is, therefore, the danger that a new product will become obsolete before the development costs can be recouped. With a company as large as Northern, however, such a problem should be minimal because of its large and developing sales base and marketing skills.

3. Potential Divestiture of Western Electric

Western Electric (WE), the world's largest telecommunications equipment manufacturer, at present does most of its business with its parent American Telephone and Telegraph as a result of an earlier voluntary consent decree to an antitrust suit. Under another suit presently filed, the divestiture of WE from AT&T is looked for. Should this suit succeed, presumably WE would be free to seek equipment business outside the U.S. Bell system, and this could mean intense competition. However, the following points should be kept in mind.

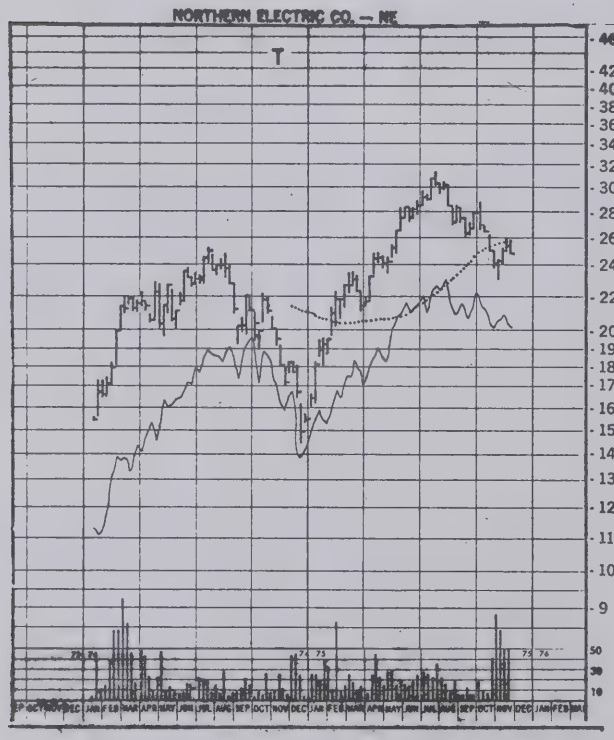
- There is no assurance of divestiture.
- The suit may not be concluded for 10 years.
- Western Electric, not being externally oriented, has little in the way of a marketing organization or skills to enable it to compete presently in place.
- A divestiture will mean opening the vast U.S. Bell market to outside suppliers, which may more than compensate. That is, while WE becomes a competitive factor in 20% of the U.S. market, the other 80% will be opened to Northern and others.

Overall, we believe Northern Electric has already demonstrated its ability to cope, and we look for an exciting and prosperous future. We think a longer term average growth rate of 12-15% should readily be achieved.

IX. STOCK MARKET CONSIDERATIONS

1. Trading History

Northern Electric common shares were first offered to the public in late 1973 at $15 and were listed on the Toronto, Montreal and Vancouver stock exchanges on January 8, 1974. They have been relatively volatile, trading in the range $14 1/2 - $25 1/4 in 1974, and $16 1/4 - $31 3/8 in 1975.



2. Technical Comment

Technically, Northern Electric has been in an intermediate corrective phase following a strong advance to the July record high of $31 3/8. Support is likely around $22. (H.M.)

3. Marketability and Float

There are now over eight million shares of Northern Electric outstanding, excluding those held by Bell Canada. This makes the Company truly an investment situation suitable for institutional accounts. Investors should also note the two million warrants available to purchase Northern shares at a price of $21.50 to 1979.

3. The Price/Earnings Multiple

Northern Electric is the only purely telecommunications manufacturer in North America for which shares are publicly traded on stock exchanges. Establishing an "appropriate" price/earnings multiple is therefore difficult. Looking at overseas manufacturers also presents problems because of dissimilarities of the markets in which the stocks might be traded.

Consider the following companies, chosen from among manufacturers which have interests in the electrical or electronics industry. None are comparable to Northern Electric from a product line standpoint, but looking at earnings growth, the market appears to be applying a multiple which suggests Northern Electric is relatively undervalued.

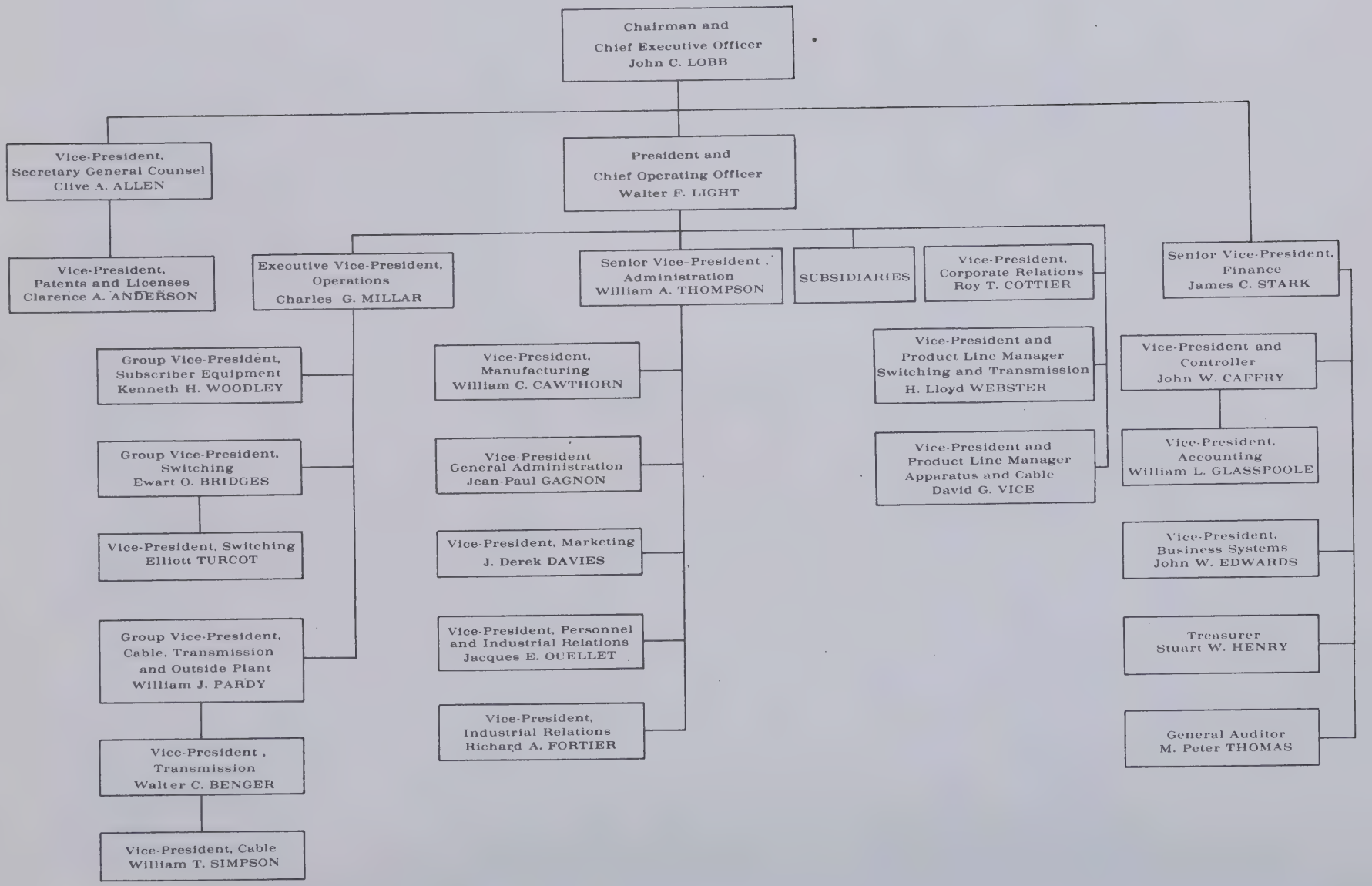
	Stock Market	Current Yield	5-Year Earnings Growth Rate	Approx. P/E
Northern Electric	Canadian	2.2%	76%	10x
General Electric	N.Y.	3.6	12	15x
Westinghouse	N.Y.	6.0	8	9x
Philips	Amsterdam	7.5	14	5x
Plessey	U.K.	6.2	11	5x
Seimens	Germany	2.7	9	18x

Returning to Ericsson Telephone, which we earlier used as the best comparative company, it commands a premium multiple on Sweden's stock exchange.

	Approximate Price/Earnings Multiples	
	Swedish Stock Market	Ericsson
1972	14.0x	14x
1973	7.8	9
1974	5.3	9
1975	6.5	11

We think Northern should command no less a preferred rating in the Canadian market where there are very few truly attractive growth situations available in institutional size. Should the overall market trade at 12 times in the near future in Canada, then a 15x multiple on Northern Electric does not seem unrealistic. This then infers a significant capital gain potential over current levels.

NORTHERN ELECTRIC COMPANY LIMITED
MANAGEMENT ORGANIZATION CHART



APPENDIX II

PROFILES ON MANAGEMENT

Mr. John C. Lobb

Mr. Lobb, age 62, was born in Minneapolis, attending the University of Minnesota and the University of Wisconsin. In his early career he practised law and did some commercial banking and tax planning before turning to business. From 1963 to 1967, he served as Executive Vice-President of International Telephone and Telegraph of New York and then went on to become President and Chief Executive Officer of Pittsburgh's Crucible Steel Corporation. In 1969 he became President of Planter Management Company, a venture capital subsidiary of Donaldson, Lufkin and Jenrette Inc., a New York investment banking firm. He also set up his own firm, John C. Lobb and Associates, a New York consulting firm. He joined Northern Electric in 1971 as President and Chief Executive Officer. He is now the Chairman of the Board and the Chief Executive Officer.

Mr. Walter F. Light

Mr. Light, age 52, was educated at Queens University, and joined Bell Canada in 1949. His career has always been with the Bell Canada organization, his last appointment being Executive Vice-President, Operations, prior to his appointment as President and Chief Operating Officer of Northern Electric in August 1974. He is a director of Northern Electric, Bell Northern Research, Northern Telecom, and the Royal Trust Company.

Mr. Charles G. Millar

Mr. Millar, Executive Vice-President, Operations, joined Northern Electric Company Limited in Montreal in 1947. Having been assigned to increasingly responsible positions in a variety of Northern Electric locations, he was named Vice-President, Switching in July 1972. He was appointed to his current post in October 1973.

Mr. Millar, 47, a native of Montreal, holds a degree in chemistry from McGill University. He is also a mechanical engineer.

Mr. James G. Stark

Mr. Stark, 47, began his business career in Montreal with Touche Ross and Co., chartered accountants in 1952. Most recently he was with Lehman Bros., a major New York investment banking firm where he was a general partner. He is Senior Vice-President, Finance, Chief Financial Officer, President of Nevron Industries, the venture capital subsidiary of the Company, and a director of Nedco and other subsidiary companies.

Mr. William Allin Thompson

Mr. Thompson, 50, a graduate of Queens University with a B.Sc., in mechanical engineering, has been with the company for more than 20 years. During this time he has held a variety of senior management positions in the company including Vice-President, Cable and Apparatus Division; Vice-President, International Development and Senior Vice-President, Operations Staff. Mr. Thompson was named to his present post of Senior Vice-President, Administration in August 1974.

Mr. Ewart O. Bridges

Ewart O. Bridges, Group Vice-President, Switching, is responsible for switching operations for Northern Electric Company Limited. Born in Toronto 51 years ago, Mr. Bridges joined Northern Electric as Vice-President, Corporate Planning in June 1969 following a career in international telecommunications.

Mr. William J. Pardy

Mr. Pardy joined Northern Electric in Montreal in 1946 and in 1969 became Vice-President, Cable and Apparatus Development, at Bell Northern Research. In 1971 he became Vice-President, Sales Cable and Apparatus and later that year assumed responsibility for marketing in those divisions. In 1972 he was named Vice-President, and General Manager, Cable and Outside Plant, and in 1974 Vice-President, Cable Division. His most recent appointment is as Group Vice-President, Cable Transmission and Outside Plant.

Mr. Kenneth H. Woodley

Mr. Woodley has assumed the Group Vice-Presidency for subscriber equipment, responsible for the station apparatus, subscriber switching, and repair and overhaul divisions. He is also a career executive with Northern Electric and has served in a variety of senior management positions, having joined the company in Belleville in 1948. Former executive appointments include Executive Vice-President, Staff in 1971, and in 1973, Group Vice-President, Cable & Outside Plant.

APPENDIX III

I. THE SP-1 ELECTRONIC SWITCHING SYSTEM

Switching equipment is used in telephone central exchanges to connect together two calling parties, whether the call is local or long distance in nature. Historically, there have been three developments in central exchange technology. These are:

i) The step-by-step exchange (electromechanical)
ii) The crossbar system (electromechanical)
iii) The electronic exchange

All three systems are in extensive use today, but new systems designs naturally favour the newer models for the advantages they provide, e.g. reliability, economy of size, ease of maintenance, advanced features, adaptability, etc. The electronic systems of today are actually not totally electronic, but use computerized control of a highly reliable electromechanical switch configuration.

There are numerous electronic exchanges on the market today, for example, Western Electric's #1-ESS or General Telephone's #1-EAX, and Northern Electric's SP-1. It is our understanding that each offers particular features and advantages of its own, with respect to adaptability to growth, optimum operating capacity, etc. The Northern SP-1 is designed for systems of 5,000 to 25,000 lines (although two can be connected in tandem for larger requirements). This designed capacity, together with advanced engineering design and traditional Northern Electric attention to reliability and quality, has proven the SP-1 attractive to a wide range of customers, particularly those companies operating smaller exchanges where the #1-ESS or the #1-EAX, for example, might not be suitable.

It is not anticipated that the successor to the SP-1 type of switching machine will be generally available before the 1980's. If the historical pattern of the two previous generations of equipment is any guide, it will be many more years after that before SP-1 sales cease. Step-by-step switches have been obsolete for twenty-five years, yet Northern Electric still sells significant quantities. The same may prove true for this equipment.

By the end of 1974, thirty-eight systems had been installed in North America. At June 30, 1975, an estimated 90 systems were on order, aggregating $187 million in value.

Some of the telephone companies that have ordered SP-1's: (not an all-inclusive list).

Canada:

- Bell Canada and affiliates
- B.C. Telephone Company Ltd.
- Alberta Government Telephones
- CN Telecommunications
- Saskatchewan Telecommunications
- Manitoba Telephone System

U.S.A.:

- Mid-Continent Telephone Corporation
- Rochester Telephone Corporation
- Winter Park Telephone Company
- Puerto Rico Telephone Company
- Hillsborough and Montgomery Telephone Company

II. THE SL-1 BUSINESS COMMUNICATIONS SYSTEM

The SL-1 business communications system is an advanced design private automatic branch exchange (PABX) that is among the first in the world to make extensive use of digital techniques. The system can provide business services for 100 to 5,000 telephones whose users may be in one or more businesses or in many difficult locations. A single SL-1, for instance, can serve the personnel in a company's head office, all the occupants in a high rise building, or even all the branches of an organization in a city.

Some of the features available on the SL-1 system:

Conference Calling. Three to six people can take part in the same conversation, whether inside the same building, outside or long distance.

Automatic dialing. The user can assign a frequently called number to a single button, eliminating the need to dial the full number from then on.

Call Forwarding. A person who will be away from his phone station can have his calls forwarded to another number (for example, to his home) so no calls will be missed.

Ring Again. The phone user who gets a busy signal can hang up and be alerted by a buzzer as soon as the busy line is free.

Hands-free Operation. The user can dial and listen without lifting the headphone. There's a speaker in the receiver.

Code Restriction. A company with SL-1 phones can limit long-distance calls to specific individuals or departments, eliminating abuses such as calls by people not on company business.

Some of these features are available now in other systems, but usually at the expense of great complexity with regards to equipment. And the SL-1 is, of course, not the first PABX in the 100 to 5,000 line range, but it offers business customers some significant advantages and benefits in addition to the above. Three technological innovations are the key elements:

i) Stored Program Control - a central control console and a minicomputer are used to handle the switching and routing of calls, as well as keeping track of the features that will be operational on each telephone set etc. Changing the features is a simple matter of reinstructing the minicomputer.

ii) Digital Switching Techniques - in addition to permitting the use of computer control methods, this allows each telephone to be connected to the system by four wires only, instead of the fifty that are ordinarily required.

iii) Use of integrated circuitry to reduce the volume of electronics required.

Among other things, this will permit more flexibility and ease in making telephone layout changes, and necessitate smaller space requirements for "back room" equipment.

It is expected that volume SL-1 production should begin in late 1975.

The statements and statistics contained herein have been prepared by Wood Gundy Limited. They were obtained from sources we believe to be reliable, but we cannot represent that they are complete or accurate. This publication is for the information of investors and does not constitute an offer to sell or a solicitation to buy the securities referred to herein. Wood Gundy Limited and/or Wood Gundy Incorporated, together with their Directors and Officers, may from time to time have a position in the securities mentioned and may, as principal or agent, buy and sell such securities.

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